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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/806,801 | 03/23/2004 | Arthur V. Hawley | 03-0194 | 2906 |

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| EXAMINER |
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DANG, ROBERT TRONG

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| ART UNIT | PAPER NUMBER |
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2838

DATE MAILED: 02/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/806,801

Applicant(s)

HAWLEY, ARTHUR V.

Examiner

Robert T. Dang

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>03/24/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5, 7, 9-13, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Covey (4920449).

As to claims 1-2, 5, 9-10, and 13 Covey teaches in figure 2, an apparatus for protecting a composite body aircraft against damage from lightning strikes, the apparatus comprising a Faraday cage defined on an exterior surface of the aircraft body (see col. 1, lines 65-68 & col. 2, lines 1-12). In practice, an electrically conductive mesh is interposed in a stack of layers of composite materials, these layers being intended to form a fuselage panel (figure 2) for example, something that amounts to conferring the properties of a Faraday cage on the fuselage of an aircraft produced in this way. Thus, the interior of the fuselage becomes electrically isolated, the mesh allowing the electric charges to drain away.

As to claims 3 and 11, Covey teaches in figure 2, wherein the body of the aircraft comprises a plurality of composite panels joined at their respective edges by splice plates; and, the electrically conductive grid comprises electrically conductive splice

plates having respective adjacent ends that are electrically coupled to each other (see col. 3, lines 13-40)

As to claims 4 and 12, Covey teaches in figure 2, wherein the respective adjacent ends of the electrically conductive splice plates are electrically coupled to each other by electrically conductive fasteners extending through respective ones of the adjacent ends of the plates and an electrically conductive strap extending between the respective adjacent ends thereof (see col. 3, lines 13-40).

As to claims 7 and 15, Covey teaches in figure 2, wherein the composite panels comprise graphite fibers (see col. 3, lines 65-68).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Covey (4839771) in view of Whelan et al. US PUB (20050178912).

As to claims 6 and 14, Covey discloses all the limitations as applied in claim 1, but does explicitly disclose the protection system comprising of a blended wing body aircraft. It would've been obvious to one of ordinary skill in the art at the time the invention was made to modify the device and incorporate the faraday cage protection

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system with that of the blended wing body so that the panels can be withstand a lightning strike with minimal damage inflicted.

Claims 8 and 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Covey (4839771) in view of Amason et al (3906308).

As to claims 8 and 16, Covey discloses all the limitations as applied in claim 1, but does explicitly disclose the protection system wherein the aircraft includes an electrical system, and wherein the electrically conductive grid comprises a ground return path of the electrical system. Amason does teach the aircraft comprising a ground return path for the electrical system (see col. 14, lines 50-51). It would've been obvious to one of ordinary skill in the art at the time the invention was made to modify the device and add a ground return path to serve as a means of a backup to the aircrafts electrical wiring system.

Conclusion

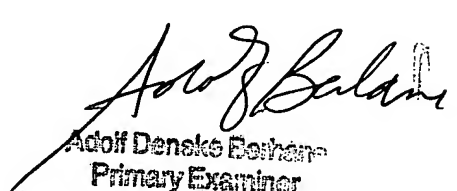
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert T. Dang whose telephone number is 571-272-8326. The examiner can normally be reached on M-F, 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl D. Easthom can be reached on 571-272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RTD


Adolf Denke Berhan
Primary Examiner